

In the Claims

1. (currently amended) ~~A polyethylene-based thermoplastic polymer article stabilized by the incorporation of a stabilizing quantity of a stabilizer composition comprising~~

high density polyethylene, low density polyethylene, linear low density polyethylene, ultra low density polyethylene or ultra high molecular weight polyethylene and

incorporated therein

- a) at least one sterically hindered phenol,
- b) at least one phosphorus-containing secondary antioxidant, and
- c) at least one tocopherol compound

wherein the weight ratio of component (a) to component (b) is from 2:1 to 1:4 and the weight ratio of component (a) to component (c) is from 2:1 to 10:1

~~during manufacture of the polyethylene-based thermoplastic polymer article.~~

2. (previously presented) A polymer article according to claim 1 wherein the weight ratio of component (a) to component (b) is 1:1 and the weight ratio of component (a) to component (c) is 5:1.

3. (previously presented) A polymer article according to claim 1 wherein the tocopherol compound is α -tocopherol (5,7,8-Trimethyl-tocol).

4. (previously presented) A polymer article according to claim 1 wherein the sterically hindered phenol is tetrakis[methylene-3-(3',5')-di-tert-butyl-4'-hydroxyphenyl]propionate]methane; Octadecyl-3,5- bis(1,1-dimethylethyl)-4-hydroxybenzenepropanoate; 1,3,5-tris[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]methyl]1,3,5,-triazine-2,4,6(1H,3H,5H)trione; 4,4',4"- [2,4,6-trimethyl-1 ,3,5-benzenetriyl]tris-(methylene)tris[2,6-bis(1,1-dimethylethyl)-phenol; Ethanediyl-3,5-bis(1,1-

dimethylethyl)-4-hydroxy-thiodi-2,1-benzenepropanoate; 2:1 calcium salt of monoethyl-[[3,5-bis(1,1-dimethylethyl)-4-hydroxyphenyl]-methyl]-phosphonic acid ester; 2-[3-[3,5-bis(1,1-dimethylethyl)-4-hydroxy-phenyl]-1-oxopropyl]-hydrazide-3,5-bis(1,1 -dimethylethyl)-4-hydroxy-benzene-propanoic acid; 2,2'-oxamido- bis-[ethyl-3-(3,5-di-tert-butyl-4-hydroxyphenyl)-propionate] or mixtures thereof.

5. (currently amended) A polymer article according to claim 1 wherein the phosphorus-containing secondary antioxidants are Triphenylphosphite, Tris-isodecylphosphite; Tris(nonylphenyl)phosphite; Distearyl pentaerythritol diphosphite; 2,4,6-tri-tert- 5 butylphenyl-2-butyl-2-ethyl-1,3-propanediol phosphite; Bis(2,4-di-tert-butylphenyl)-pentaerythrityl diphosphite; 2,2',2"-nitrido triethyl-tris[3,3',5,5'-tetra-tert-butyl-1,1'- biphenyl-2,2'-diyl]phosphite; Bis[2,4-di-tert-butyl-6-methyl-phenyl]ethyl phosphite; 2,2'- Ethylidene-bis-(4,6-di-tert-butylphenyl)fluorophosphite; Tris(2,4-di-tert-butylphenyl)phosphite; the 4,6-di-tert-butyl-m-cresol condensation products with the Friedel-Crafts-reaction products of biphenyl and phosphorus trichloride; Tetrakis [2,4-di-tert-butylphenyl]-4,4'-biphenylenediphosphonite; or the condensation products of 2,4-di-tertbutylphenol with the Friedel-Crafts-reaction product of biphenyl and PCl_3 .

6. (currently amended) A method for enhancing the processing stability of high density polyethylene, low density polyethylene, linear low density polyethylene, ultra low density polyethylene or ultra high molecular weight polyethylenepolyethylene-based thermoplastic polymers comprising which method comprises incorporating therein before or during processing a stabilizing quantity of a stabilizer composition comprising

- a) at least one sterically hindered phenol,
- b) at least one phosphorus-containing secondary antioxidant, and
- c) at least one tocopherol compound

wherein the weight ratio of component (a) to component (b) is from 2:1 to 1:4 and the weight ratio of component (a) to component (c) is from 2:1 to 10:1.

7. (currently amended) A method according to claim 6 wherein ~~the stabilizer composition~~

is components a), b) and c), in total, are added in an amount of from 0.001 to 5% by weight, based on the polyethylenethermoplastic polymer.

8. (canceled)

9. (currently amended) A masterbatch composition ~~for a polyethylene-based thermoplastic polymer~~ comprising

90 to 20% by weight of high density polyethylene, low density polyethylene, linear low density polyethylene, ultra low density polyethylene or ultra high molecular weight polyethylene

and

10 to 80% by weight, in total, of

- a) at least one sterically hindered phenol,
- b) at least one phosphorus-containing secondary antioxidant, and
- c) at least one tocopherol compound

wherein the weight ratio of component (a) to component (b) is from 2:1 to 1:4 and the weight ratio of component (a) to component (c) is from 2:1 to 10:1

~~and a thermoplastic material which is identical or compatible with the polyethylene-based thermoplastic polymer to be stabilized.~~

10. (canceled)

11. (canceled)

12. (currently amended) A method according to claim 6 wherein components a), b) and c), in total,
are incorporated~~the stabilizer composition is added~~ in an amount of from 0.01 to 1% by weight, based
on the polyethylenethermoplastic polymer.

13. (currently amended) A method according to claim 6 wherein components a), b), and c), in total,
are incorporated~~the stabilizer composition is added~~ in an amount of from 0.1 to 0.5% by weight, based
on the polyethylenethermoplastic polymer.

14. (canceled)

15. (currently amended) A polymer article according to claim 1 ~~stabilized by the incorporation of a~~
~~stabilizing quantity of a stabilizer composition~~ comprising

a) tetrakis[methylene-3-(3',5')-di-tert-butyl-4'-hydroxyphenyl]propionate]methane,

b) a mixture of

50-80 parts by weight of tetrakis(2,4-di-tert-butylphenyl)-biphenylene-diphosphonite,
10-25 parts by weight of bis(2,4-di-tert-butylphenyl)biphenylene-monophosphonite and
10-25 parts by weight of tris-(2,4-di-tert-butylphenyl)phosphite and

c) α -tocopherol,

where the weight ratio of component (a) to component (b) is from 2:1 to 1:1 and the weight ratio of
component (a) to component (c) is from 5:1 to 10:1.

16. (canceled)

17. (currently amended) A polymer article according to claim 15 comprising

~~a) tetrakis[methylene 3-(3',5')-di-tert-butyl-4'-hydroxyphenyl]propanoate]methane,~~

~~b) a mixture of tetrakis(2,4-di-tert-butylphenyl)-biphenylene-diphosphonite,~~

~~bis(2,4-di-tert-butylphenyl)biphenylene-monophosphonite and tris-(2,4-di-tert-butylphenyl)phosphate~~
and

~~c) α -tocopherol~~

where the weight ratio of component (a) to component (b) is 1:1 and the weight ratio of component (a) to component (c) is 10:1.